REMARKS

Claims 8-14 are pending in the application. Claim 8 has been amended to clarify that the second device compares a state of a pixel to matching states of adjacent pixels. Claim 9 has been amended to overcome the rejection under 35 USC 112, second paragraph.

In response to the drawing objections, replacement sheets are provided, in which text labels have been added to the block elements of FIGS. 1-5. No new matter is added. Approval of the corrected drawings is respectfully requested.

Applicants appreciate the information about the guidelines for preferred layout of the specification. This application was filed originally in the German Patent Office in the German language, and claims priority therefrom. Applicants have amended to specification to include appropriate section headings. No new matter is added.

In the specification, page 2, line 31 has been amended to remove reference to a specific claim number. Also, a title has been provided that is indicative of the invention to which the claims are directed. The abstract has been amended to comply with the guidelines noted in the Office Action. It is believed that all objections to the specification have been overcome.

Claims 9-11 were rejected under 35 USC 112, second paragraph, as being indefinite due to the terms "small" and "large" in claim 9. Claim 9 has been amended to clarify that motion sensitivity is varied based on the magnitude of the line differences. Support for this amendment is provided in the specification as originally filed (see, e.g., page 7, lines 25-36).

Applicants' claimed invention is directed to a circuit for frame rate conversion in a video signal reproduction device using a motion-adaptive method. As recited in claim 8, the circuit has a motion detector for producing motion values of pixels, the motion detector including a first device for assigning a pixel motion signal to each pixel, i.e., either a first state (indicating a moving pixel) or a second state (indicating a stationary pixel). The motion detector further includes a second device for correcting the pixel motion signals, whereby the state of a pixel that differs from matching states of adjacent pixels is ignored.

For example, as shown in FIG. 5, a first correction unit 321 is provided to delete/ignore individual motion signals of pixels which are in the first state (moving) when those pixels are surrounded by motion signals which are in the second state (stationary). In operation, a mask is placed over the entire picture and a decision is made for each pixel motion signal whether it will or will not be deleted (see specification at page 9, lines 16-27).

Applicants' invention can provide significant benefits. By deleting the pixel motion signal (i.e., ignoring the state) of a pixel assigned to the first state when surrounding pixels are assigned to the second state, it is possible to produce more accurate motion signals.

Claim 8 was rejected under 35 USC 103(a) as being unpatentable over U.S. Patent 5,471,252 to Iu. This rejection is respectfully traversed.

Iu fails to teach or suggest a motion detector having a first device and a second device as recited in claim 8.

The Iu reference relates to a method of generating motion vector fields, and more particularly to comparing a motion vector field of a current frame to motion vector fields of two other frames: one before and one after the current frame (see, e.g., Iu at column 9, lines 46-50). With reference to FIG. 8, an input video signal is applied to frame memories 810 and 812. Differential pixel values are obtained by subtracting current video information from a previous frame, provided by frame memory 818 (see column 11, lines 52-56). Video data may be generated based on similar data in a preceding frame, succeeding frame, or both. Motion compensation circuitry 816 then calculates the best motion vector for a block of pixels, e.g., by averaging the individual motion vectors (see column 11, line 64 to column 12, line 5).

As described above, Iu teaches the calculation of motion vector fields by comparing video data in a current frame to video data in a previous frame and/or video data in a succeeding frame. However, Iu does not teach or suggest the first device or second device of the motion detector recited in claim 8.

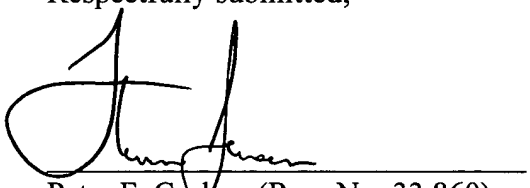
In particular, Iu does not assign a "first state" or a "second state" to each pixel based on whether the pixel was moving or stationary, respectively. As recited in claim 8, the first device produces pixel motion signals of the "first state" and "second state" after evaluating each pixel. In contrast, Iu compares video data of a current frame with video data of a previous frame or a succeeding frame, but does **not** produce pixel motion signals which have a "first state" or a "second state", as required in claim 8.

Moreover, Iu does not teach or suggest a second device for correcting pixel motion signals by ignoring the state of a pixel which differs from matching states of adjacent pixels. As explained above, motion vectors in Iu are calculated by "averaging the individual motion vectors" (column 12, line 3), **not** by ignoring/deleting the state of a particular pixel, as recited in claim 8.

For at least the reasons described above, Iu does not anticipate or otherwise render obvious the Applicants' claimed invention.

It is believed the application is in condition for immediate allowance, which action is earnestly solicited.

Respectfully submitted,



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